

CLAIMS

1. A plastic part at least partially coated with a metallic deposit including:

- 5        - a first non-metallised plastic material (2),  
          - a second plastic material (1) at least partially coated by the metallic deposit, characterised in that:

10      - the metallic deposition includes attachment sites including nitrogenous moieties and palladium moieties at the interface (4) with the second material, includes a first layer (5), called the initial layer having a first thickness, includes at least one second layer (6), called the external layer having a second thickness,

      - the first and second plastic materials being devoid of metallic or catalytic charges.

15      2. The part according to claim 1, characterized in that the interface is constituted on the second material by means of a plasma activation of at least this second material followed by immersion of the part in a bath of ionic palladium.

20      3. The part according to claim 2, characterised in that this plasma activation is conducted on the two plastic materials for a duration so as to activate only one of plastic materials.

      4. The part according to claim 3, characterised in that the plasma activation activates the two materials, a deactivation stage of one of the materials being interposed between the activation and the immersion.

25      5. The part according to claim 4, characterised in that the deactivation stage is a waiting or aging stage.

      6. The part according to claim 2, characterised in that the plasma activation is done on both materials, oxygen is supplied during a chemical deposition stage subsequent to the immersion of the part in the ionic palladium bath to form the initial layer on only one of the plastic materials.

30      7. The part according to any of the previous claims, characterised in that the first and second materials are chosen from SPS, LCP, PBT, PPS materials and the various catalytically uncharged grades thereof.

35      8. The part according to any of the previous claims, characterised in that the first and second plastic materials form after treatment a not-metallisable/metallisable pair chosen from LCP/SPS; PBT/LCP; PBT/SPS; PPS/LCP; PPS/SPS; PBT/SPS.

9. The part according to any of the preceding claims, characterised in that the external layer is created by electrochemical deposition of a metal such as copper, nickel.

10. The part according to any of the preceding claims, characterised in that the thickness of the initial layer is between 0.3 µm and 1.5 µm, and in that the external layer has a thickness between 4 µm and 30 µm.

11. The part according to any of the preceding claims, characterised in that the adhesive force of the deposit on the second plastic material is greater than 1 N/mm<sup>2</sup>.

10 12. The part according to claim 11, characterised in that the adhesive force of the deposit on the second plastic material is greater than 2 N/mm<sup>2</sup>.

13. The part according to any of the preceding claims, characterised in that the surface of the second material after pulling off the deposition presents an analysis spectrum having at least peaks (8, 10, 11, 12) corresponding to nitrogen moieties, peaks (13, 14) corresponding to palladium moieties, and displays a shift of peaks (13, 14) corresponding to the palladium moieties specific to PdN<sub>x</sub> bonds.